Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

      1. (currently amended): ~~In a blood pressure measuring system, a~~ A method for determining central systolic pressure, comprising the steps of:

      determining a time t from a pressure wave foot to a peak in a central carotid artery;

5   measuring an upper limb pressure waveform with a sensor; and

      using a computer readable program to locate ~~locating~~ the wave foot in the upper limb pressure waveform and ~~determining~~ determine the corresponding pressure at time t after the wave foot;

      wherein said corresponding pressure is substantially the central systolic pressure.

      2. (currently amended): ~~In a blood pressure measuring system, a~~ A method for determining central systolic pressure, comprising the steps of:

      measuring an upper limb pressure waveform with a sensor;

      using a computer readable program to locate ~~locating~~ a time of the start of a

5 component of said upper limb pressure waveform attributable to lower body wave reflection by analyzing derivatives of the upper limb pressure waveform; and

      using a value of the upper limb pressure waveform at said time in a computer readable program to determine the central systolic pressure.

      3. (previously presented): The method according to claim 2, wherein said step of locating the time comprises the following steps:

determining a peak of said upper limb pressure waveform;

determining if there is a minimum of a first derivative of said upper limb pressure

5   waveform before said peak;

if a minimum is determined then treating the time as being located at the occurrence of said peak;

if no minimum is determined then:

searching for a first zero crossing of a second derivative of said upper limb

10   pressure waveform from positive to negative after said peak and before incisura;

if a first zero crossing is found then treating the time as being located at said first zero crossing;

if a first zero crossing is not found then:

searching for a zero crossing of a third derivative of said upper limb pressure

15   waveform from positive to negative before said peak;

if a zero crossing is found then treating the time as being located at the occurrence of said peak;

if a zero crossing is not found then:

searching for a first zero crossing of the third derivative from positive to negative

20   after said peak and treating the time as being at said zero crossing.

4. (previously presented): The method according to claim 3, wherein said step of determining if there is a minimum of a first derivative of said upper limb pressure waveform before said peak comprises determining if there is a zero crossing of a second derivative from negative to positive before said peak.

5-6.   (cancelled)

7. (previously presented): A computer-readable medium having a computer-readable program for programming a device to determine the central systolic pressure according to the method of claim 1.

8. (previously presented): A computer-readable medium having a computer-readable program for programming a device to determine the central systolic pressure according to the method of claim 2.

9. (currently amended): The method as recited in claim 1 wherein the measured upper limb pressure waveform is a radial pressure waveform measured using ~~applanation tonometry~~ a tonometer.

10. (currently amended): A method as recited in claim 2 wherein the measured upper limb pressure waveform is a radial pressure waveform measured using ~~applanation tonometry~~ a tonometer.

11. (currently amended): The method as recited in claim 1 wherein the measured upper limb pressure waveform is a brachial pressure waveform ~~measured with a brachial cuff~~.

12. (currently amended): A method as recited in claim 2 wherein the measured upper limb pressure waveform is a brachial pressure waveform ~~measured with a brachial cuff~~.

13. (previously presented): A method as recited in claim 2 further comprising the step of limiting the search for the time of the start of the component of the upper limb pressure waveform attributable to the lower body wave reflection to an initial 40% of the length of time of the upper limb pressure waveform after the wave foot for the waveform.

14. (withdrawn): ~~A method as recited in claim 2 further comprising the step of limiting the search for the time of the start of a component of the upper limb pressure waveform attributable to the lower body wave reflection to a portion of the waveform after a first preselected length of time after the initial wave foot for the waveform.~~

15. (withdrawn): ~~A method as recited in claim 2 further comprising the step of limiting the search to locate the time of the start of a component of the upper limb pressure waveform attributable to lower body wave reflection to a portion of the waveform before a preselected length of time after the initial wave foot of the upper-limb pressure waveform.~~